# Gyro Stabilized Marine Satellite TV System

# Model 9815-RJ
# Model 9818-RJ

## Installation and Operating Instructions

KING CONTROLS®

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1315 REV C

# IMPORTANT!

**The satellite TV market is expanding and changing. The information in this manual was accurate at the time of printing. If your Sea-King does not operate as outlined in this manual please call King Controls at (800) 982-9920 or visit our website at www.kingcontrols.com.**

**Please read this entire manual before beginning the installation.**

**DISH NETWORK - EXPRESSVU: If you plan to use the Sea-King with Dish Network or ExpressVu programming, your receiver must be configured.**

**To configure the DISH receiver, the antenna must be on the ground, dock or motionless platform with no movement (see pages 24-25).**

**This Sea-King is factory ready to receive available HDTV programming from DIRECTV Ku band satellites at 101° and 119°. This Sea-King will also receive available HDTV programming from the DIRECTV Ku band satellite at 110°, but must include a properly installed HD converter accessory #9747. It will not receive channels broadcast from DIRECTV's Ka band satellites at 99° and 103°.**

Note: The following upgrade kit is available for this unit:

Upgrade Kit #9747: Enables viewing of HD broadcasts from the DIRECTV 110° satellite.

For more information, call the King Controls Sales Department at (800) 982-9920.

# TABLE OF CONTENTS


| Section | Contents | Page |
|---|---|---|
| 1. | INTRODUCTION | 2 |
| 2. | DEFINITION OF TERMS | 3 |
| 3. | INSTALLATION | 4-17 |
| 4. | OPERATION | 18-21 |
| 5. | AUTOMATIC SATELLITE SWITCHING (DIRECTV®) | 22 |
| 6. | AUTOMATIC SATELLITE SWITCHING (DISH NETWORK™ - EXPRESSVU) | 23 |
| 7. | CHECK SWITCH PROCEDURE | 24-25 |
| 8. | TROUBLESHOOTING | 26-29 |
| 9. | MAINTENANCE | 30 |
| 10. | LIMITED WARRANTY | 31 |



DIRECTV® is a registered trademark of DIRECTV, Inc.
Dish Network™ is an official trademark of Echostar Communications Corporation.
Bell ExpressVu is an official trademark of Bell Canada.
DVB® is a trademark of the DVB Digital Video Broadcast Project (1991-1996)

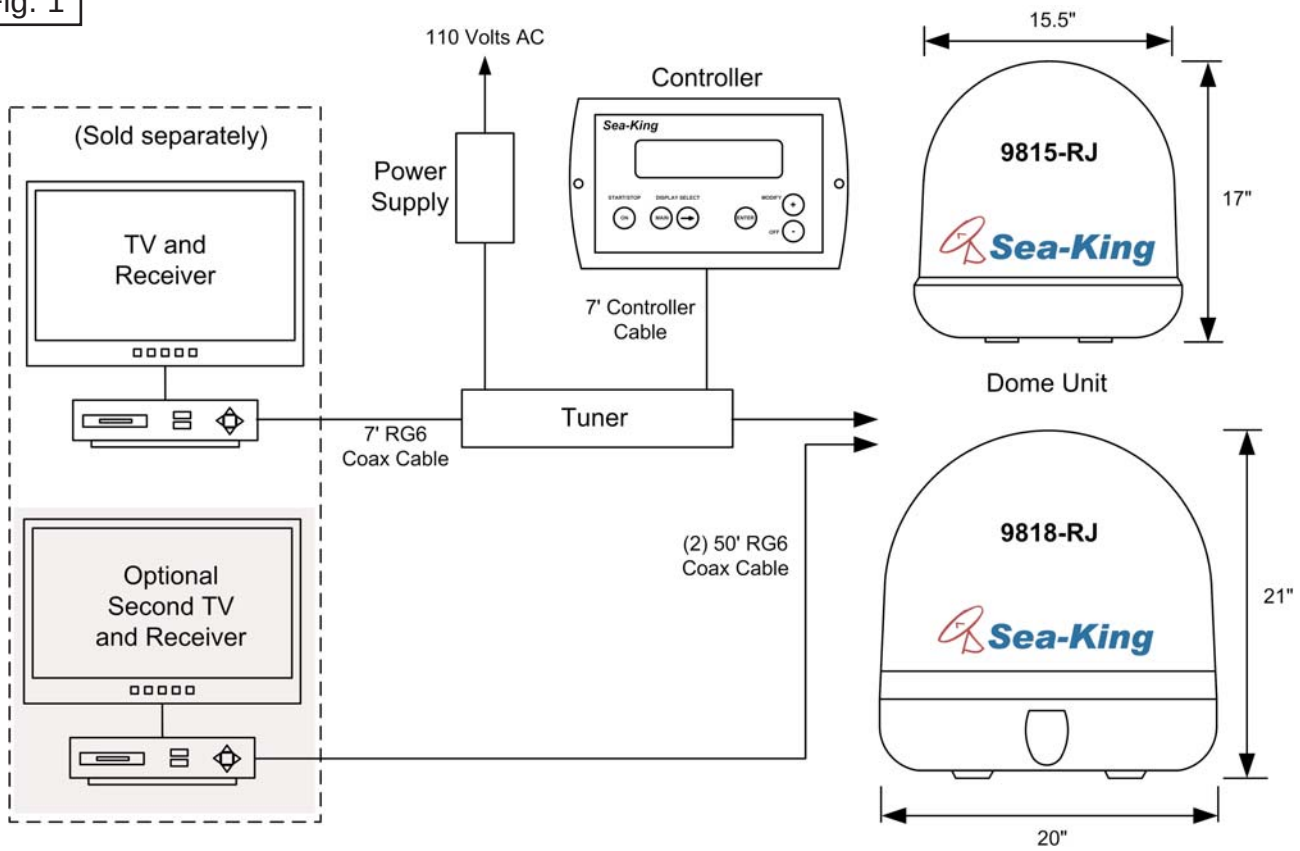
# SECTION 1 INTRODUCTION

The Sea-King Fully Stabilized Marine Satellite System includes 4 main components **(Fig. 1)**.

| | |
|---|---|
| Dome (Antenna) Unit | Mounted on the vessel. The dish is covered by a protective dome that keeps operational components free from the elements. |
| Controller | Located in the vessel. Used to activate and monitor the system, and access programming and diagnostic information. |
| Tuner | Located in the vessel. Decodes the satellite signal so the Sea-King locks onto and tracks the correct satellite. |
| Power Supply | Located in the vessel. Supplies proper operating voltage to the Sea-King. |

Note: A TV, satellite receiver, and program subscription are also required for satellite TV viewing. (Sold separately.)

Fig. 1

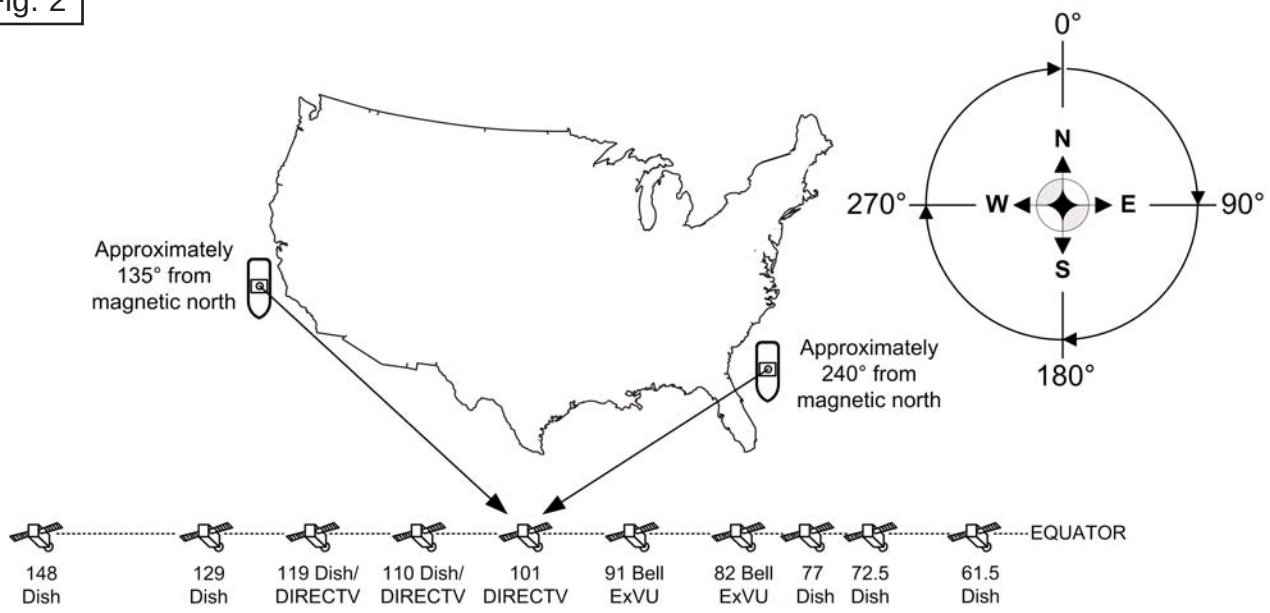



Note: Overview only: see Installation Section for wiring schematic.

## SECTION 2 DEFINITION OF TERMS

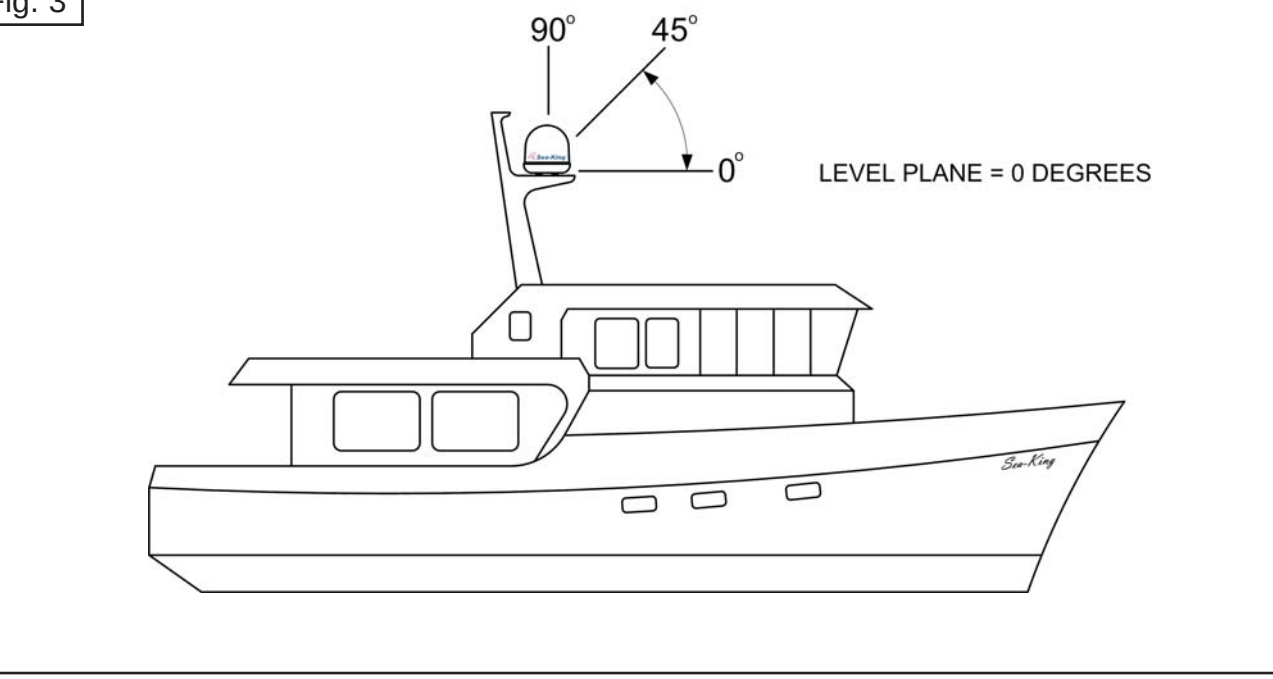
**AZIMUTH:** Angle in degrees measured clockwise from Magnetic North (0°) **(Fig. 2)**.

Fig. 2




**ELEVATION:** Angle in degrees measured from a level plane **(Fig. 3)**.

Fig. 3




**SIGNAL STRENGTH:** Intensity of electronic signal received from the satellite transmission.

# SECTION 3 INSTALLATION

## TOOLS AND MATERIALS REQUIRED

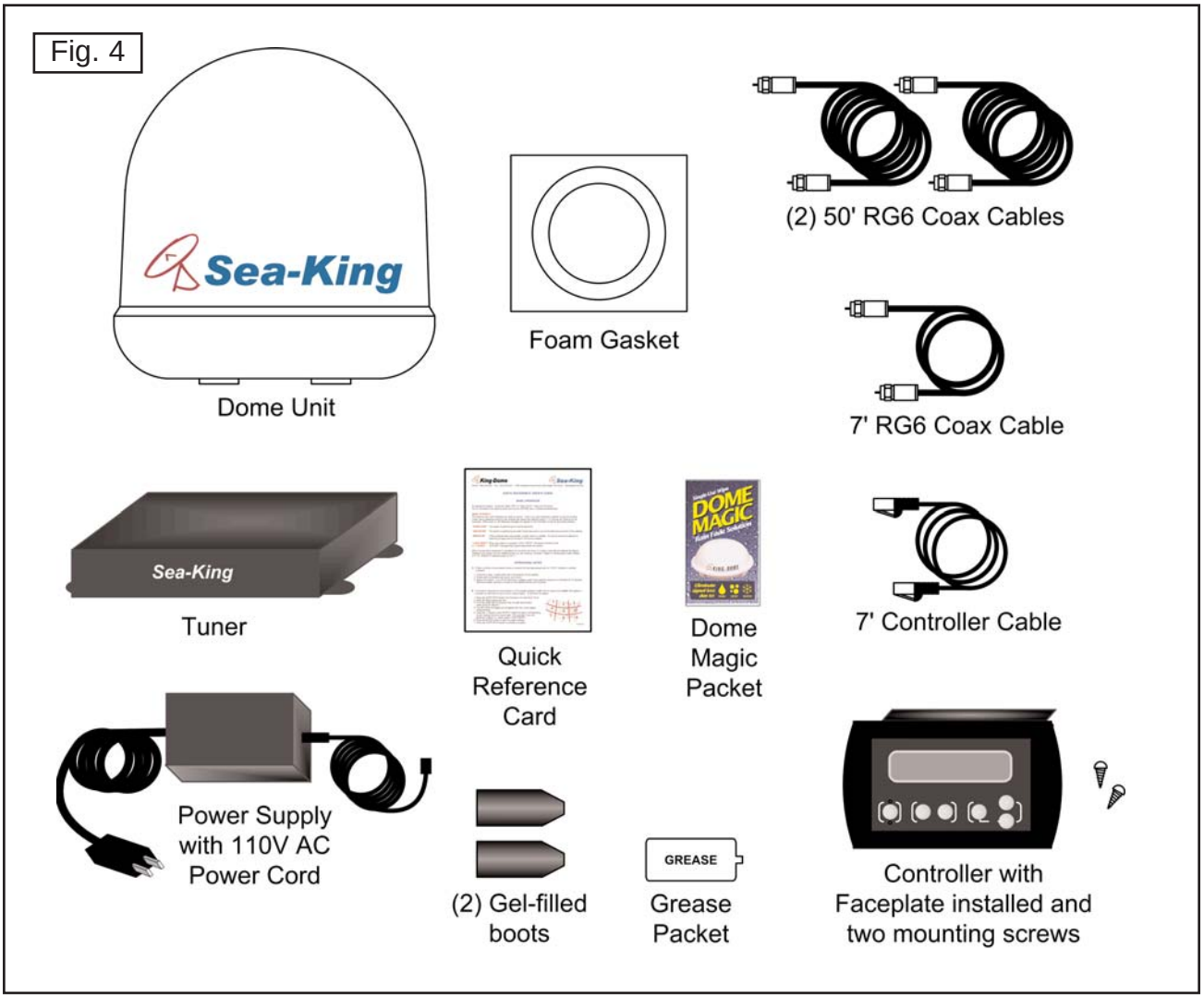
1. Read thru the instructions and make sure you have all the tools and materials required to complete the installation, including:

- drill and drill bit set
- tape measure
- 7/16” open end wrench (coax connections)
- 5/32” allen wrench, channel lock or pliers (to remove shipping bolt)
- 1/8” allen wrench or phillips screw driver (to remove dome cover)
- appropriate fasteners and tools to install all components and wiring
- adhesive sealant, compatible with vessel material

## KIT CONTENTS

1. Unpack and identify all components **(Fig. 4)**.

Fig. 4

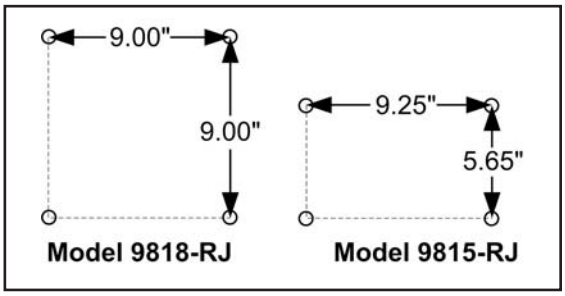


## DOME LOCATION

1. Select an area on the vessel for the dome unit, keeping in mind the coax cables will enter the vessel through the surface directly beneath the dome unit. Use the following criteria:

   a) The shortest distance between the dome unit and the main satellite receiver is most desirable.

   b) The dome unit requires a 16.5" **(model 9815-RJ)** or 20" **(model 9818-RJ)** diameter mounting area on the vessel surface. You may also use an industry standard mount. *(Call King Controls or visit www.kingcontrols.com for more information.)* Exact hole spacing is shown at right. Distances are to centers of holes.




   c) The dome unit should never be mounted so that it is tilted more than two degrees in any direction.

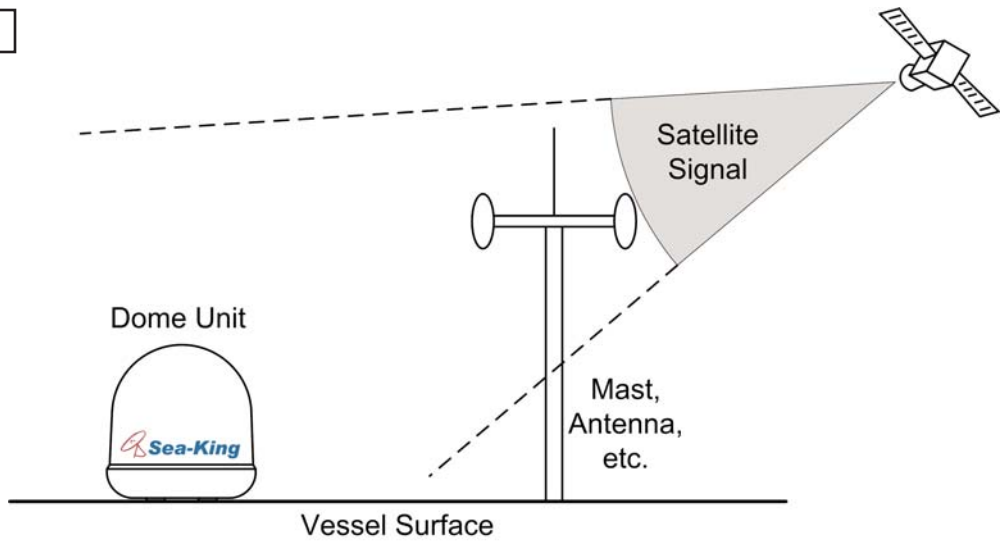
   d) Keep the dome unit as far away from the radar as possible, and if possible above the level of the radar.

   e) The dome unit should be mounted as closely as possible to the center of the vessel (fore-aft and side to side).

   f) The mounting surface must be strong enough not to flex under the weight of the unit or from vessel vibrations.

   g) There must be no "line of sight" obstructions from this location. Items such as masts or radar antennas that are too close to the dome unit may prevent the satellite signal from reaching the dish **(Fig. 5)**.

Fig. 5

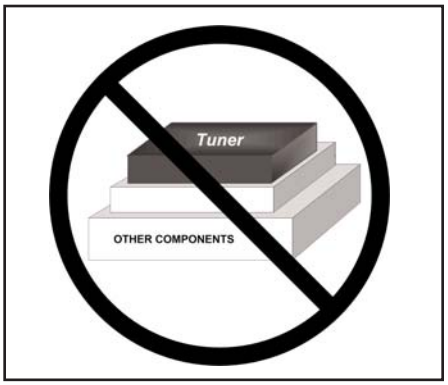


## COMPONENT LOCATION

1. Select the location of the internal components using the following criteria:

   a) The Controller, Tuner, and Power Supply should be in the same general vicinity of the main satellite receiver, **AND ACCESSIBLE FOR OPERATION AND MAINTENANCE PURPOSES.**

   b) The Tuner should not be stacked directly on top of other electronics. If located in a cabinet or other enclosure, make sure there is adequate ventilation around the unit. *(If using the Tuner mounting brackets see page 17.)*




   c) The Controller should be conveniently located for the end user. *(If using the Wall Mount Faceplate, see page 16.)*

   d) All components should be secured so they do not shift or bounce around during vessel motion.

2. Place the components in the selected areas.

## REMOVE SHIPPING RESTRAINTS

Note: Reference appropriate figure on next page for your model number:

Model 9815-RJ: see Fig. 6A
Model 9818-RJ: see Fig. 6B

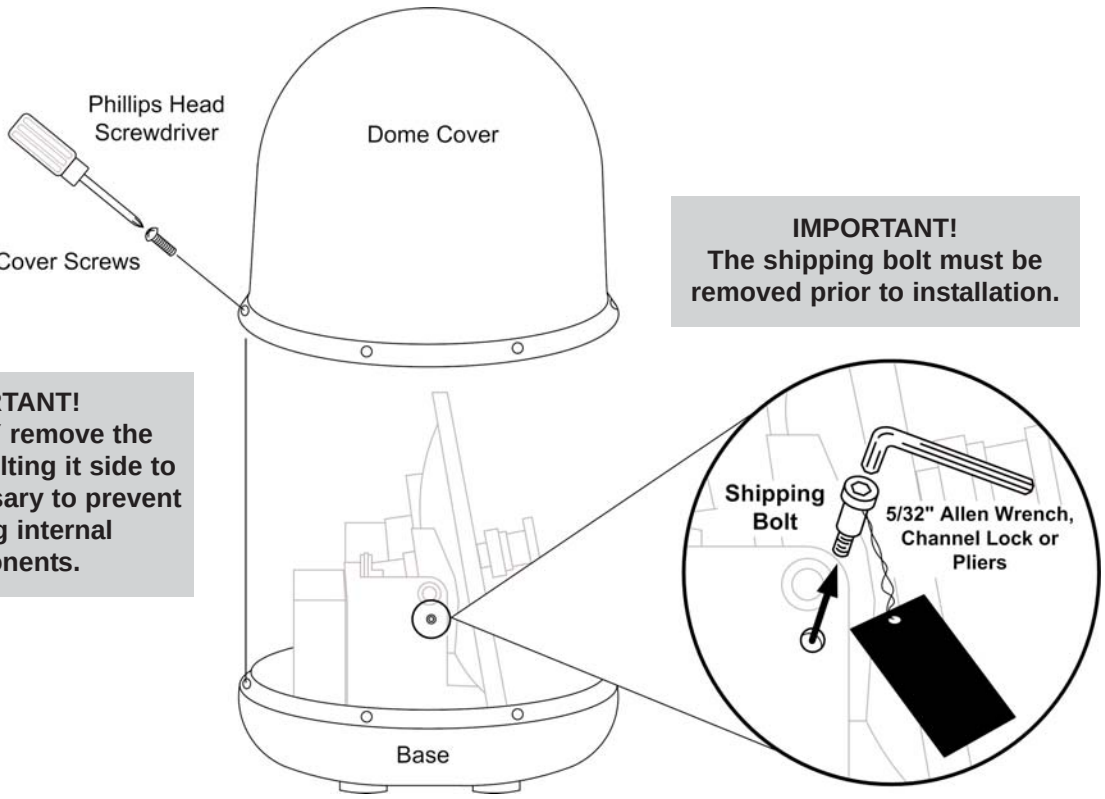
1. Remove and save the dome cover screws. **(Figs. 6A and 6B)**.

2. Carefully remove the dome cover. Do not allow dome cover to catch on internal components or wiring.

3. Remove and discard the shipping bolt.

Fig. 6A

## 9815-RJ

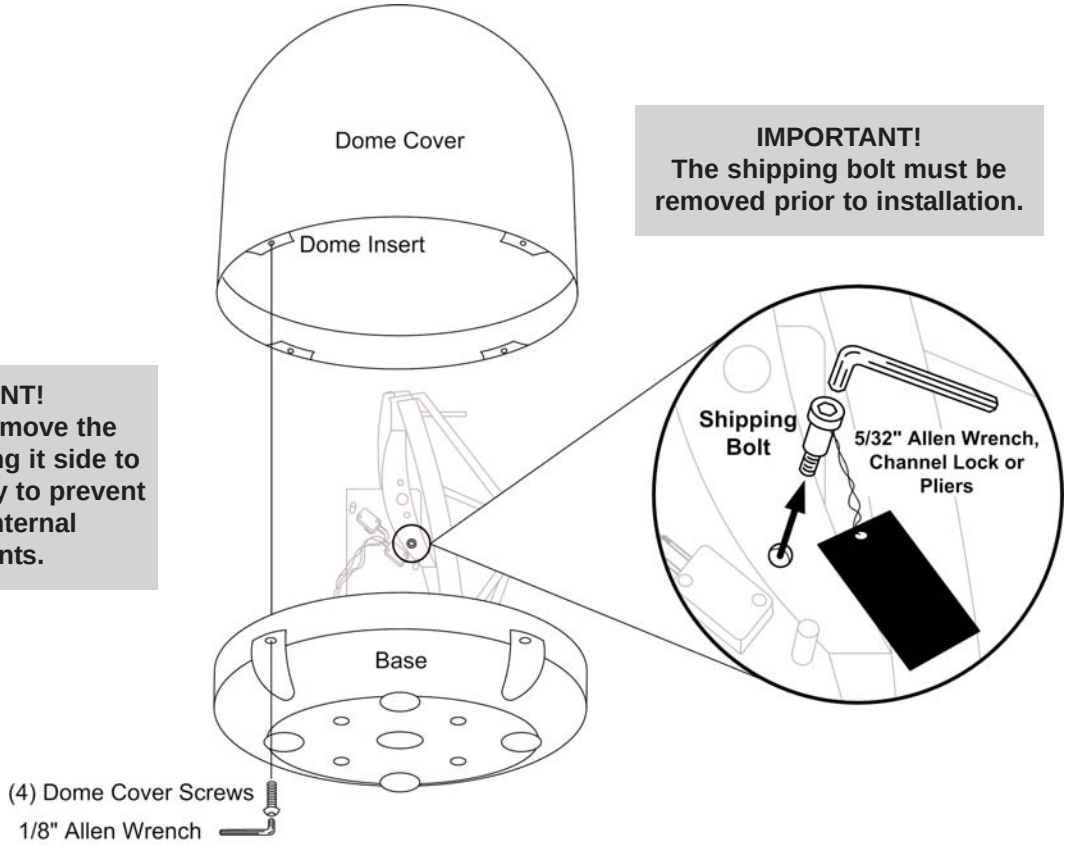



**IMPORTANT!**
**The shipping bolt must be removed prior to installation.**

**IMPORTANT!**
**<u>CAREFULLY</u> remove the dome cover, tilting it side to side as necessary to prevent damaging internal components.**

Fig. 6B

## 9818-RJ

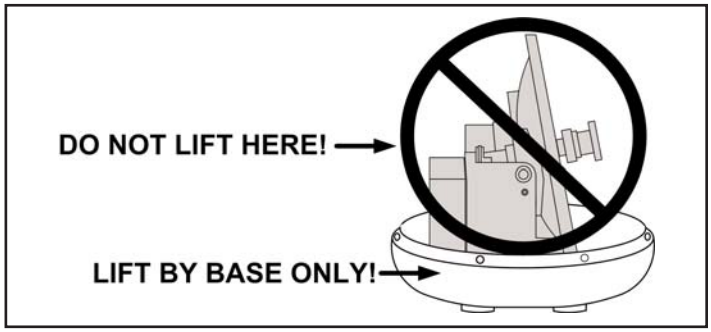



**IMPORTANT!**
**The shipping bolt must be removed prior to installation.**

**IMPORTANT!**
**<u>CAREFULLY</u> remove the dome cover, tilting it side to side as necessary to prevent damaging internal components.**

**EXTREMELY IMPORTANT!**

**NEVER lift the unit by the LNB assembly, Wave Guide assembly, or the dish.**
**Lift the unit by the base ONLY.**

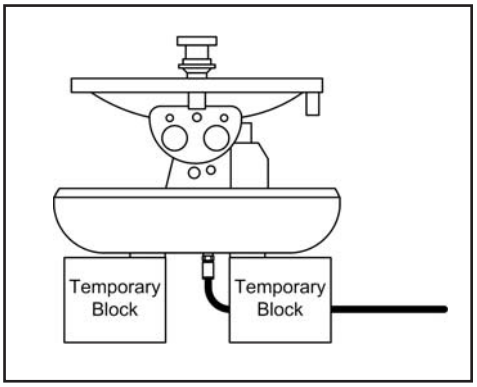



## PRE-INSTALLATION CHECK

To verify proper operation of the components, perform a Pre-Installation Check as follows:

1. Place the dome unit in your chosen location and on its mounting pedestal. Temporarily secure the unit from falling. **DO NOT PERMANENTLY MOUNT THE DOME UNIT UNTIL YOU HAVE COMPLETED THE PRE-INSTALLATION CHECK ON THE NEXT PAGE.**

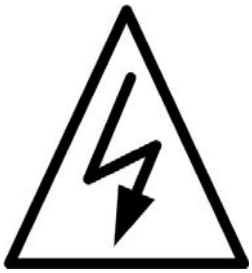
If mounting to the vessel surface, you will need to temporarily place the dome unit on a pedestal or blocks to perform the pre-installation check.




**IMPORTANT! IF CONFIGURING THE RECEIVER FOR MULTIPLE SATELLITE SWITCHING WITH DISH NETWORK OR EXPRESSVU, Y0U MUST DO THE PRE-INSTALLATION CHECK ON A MOTIONLESS PLATFORM SUCH AS THE DOCK OR GROUND.**

## ELECTRICAL HAZARD WARNING!

The coax cable that connects the dome unit to the tuner carries a 24 volt electrical current. Exercise extreme caution when handling this cable. Do not cut, break, or splice this line. Do not insert or connect any devices such as splitters or any other device for any reason. This line is not compatible with any other equipment. Damage will occur to any device other than the dome unit if connected to the antenna port on the tuner.



2. ***TEMPORARILY*** connect the system as outlined on page 13.

   If using both 50' coax, label the ends of one coax to avoid confusion when making the connections.

   **MAKE SURE TO CONNECT POWER LAST.**

3. Verify system operates properly as described in Section 4 OPERATION, Page 18.

   **DISH NETWORK - EXPRESSVU**: If configuring the receiver for multiple satellite switching, do this now while the antenna unit is on a motionless platform (see page 24).

4. After verifying proper operation of the system, **DISCONNECT POWER FIRST** then all other components.

## DOME INSTALLATION AND EXTERNAL WIRING

**IMPORTANT!** **USE ONLY THE COAX CABLES SUPPLIED WITH THE SEA-KING.**
**COIL AND STORE EXCESS CABLE IN THE CABINET WITH THE COMPONENTS.**
**DO NOT CUT COAX.**

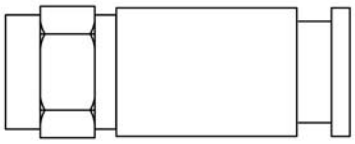
**If coax cable other than that supplied with the Sea-King is used, the following guidelines must be followed:**

1) **Ends must be terminated with SNAP-N-SEAL® connectors (Fig. 7.) (DO NOT USE TWIST-ON OR HEX-CRIMPED CONNECTORS.)**

2) **Cable must be RG6 and rated at 2.2 GHz or higher.**

Fig. 7

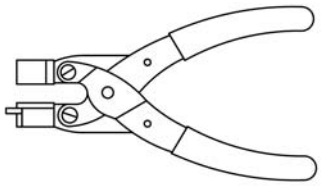
**SNAP-N-SEAL® CONNECTOR**



**Thomas and Betts part # SNS 1P6**

**King Controls part # 10211**

**CRIMPER**



**Thomas and Betts part # SNSUTL**

**King Controls part # 10204**

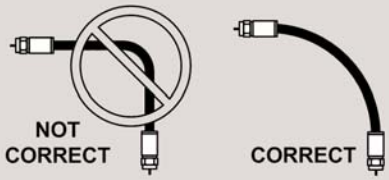
**IMPORTANT! Rubber O-rings must be *REMOVED* from ends of all SNAP-N-SEAL® connectors.**

**IMPORTANT! Make sure power supply is disconnected from 110 volt source before continuing with permanent installation.**

**The installer is responsible for weatherproofing all holes in the vessel.**

Note: The installer is responsible for determining the most appropriate fastener to secure the dome unit to the pedestal or vessel surface. Depending on the surface material, fasteners such as lag screws, sheet metal screws, toggle bolts and T anchors may be used.

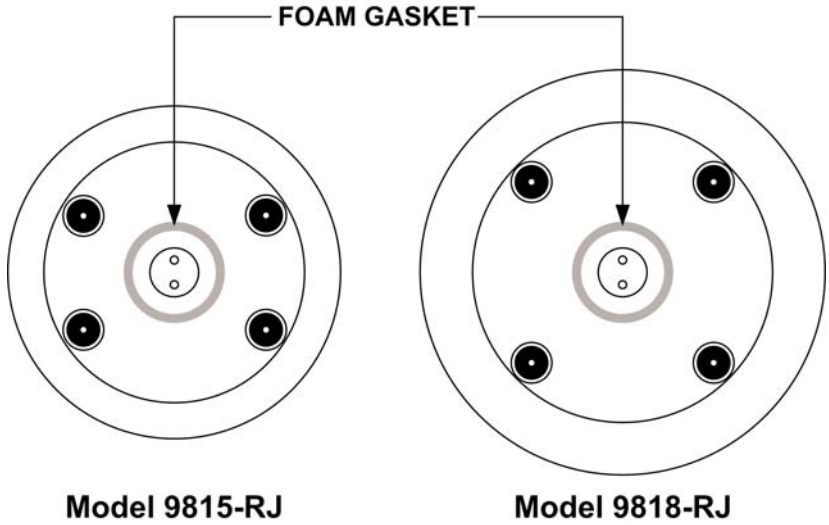
**AVOID SHARP BENDS WHEN ROUTING COAX!**




1. Determine the path of the coax cable(s) from the dome unit to the internal components. Drill necessary holes (3/4") in vessel surface where coax will enter vessel. Route coax cable(s) leaving enough slack to attach to, and mount, dome unit.

2. Apply foam gasket to bottom of dome unit (**Fig. 8)**.

Fig. 8




Note: The Sea-King is wired for multiple receiver support. There are two coax ports on the bottom of the dome unit. The one labeled "MAIN" **MUST** be connected to the Tuner (IDB) in vessel. The unlabeled port can be used for an additional receiver (see page 13).

**IMPORTANT! You must fill the ends of all external coax cables with the supplied dielectric grease. Failure to do so will void warranty.**

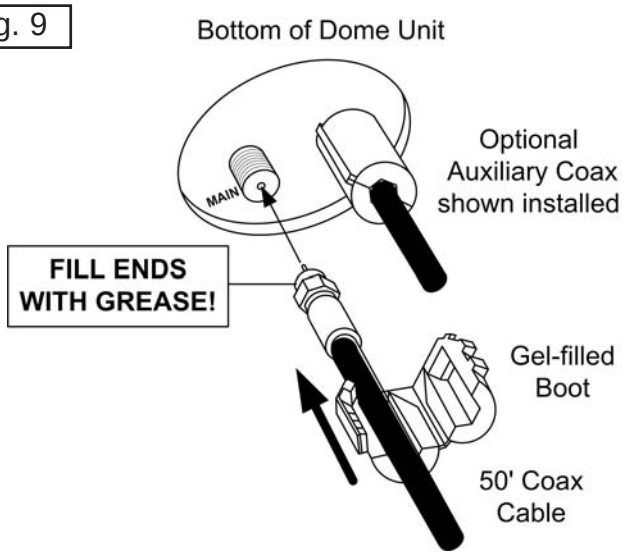
3. Fill end of coax cable that will connect to the MAIN port on the dome unit with supplied dielectric grease. Connect this end of the coax cable to the MAIN port and tighten connection (**Fig. 9)**.

   If using a second (auxiliary) receiver, fill end of second coax cable and connect it to the unlabeled port. Tighten connection.

   **DO NOT OVER TIGHTEN CONNECTIONS.**

4. Snap the gel-filled boots around the coax cables, then push flush against the bottom of the dome unit.

Fig. 9




**IMPORTANT!**

**You must fill the ends of the external coax cables with the supplied dielectric grease. Failure to do so will void warranty.**

**Coax connections should be snug.**
**DO NOT OVER TIGHTEN!**

**Gel-filled boots must sit flush against bottom of dome unit.**

5. Use the four mounting holes inside the base to install the dome unit to the mounting pedestal or the vessel surface.

6. Secure coax every 12-18 inches and seal all openings where the coax enters the vessel so they are entirely waterproof *(inside and outside of the holes)*.

**IMPORTANT! The dome cover screws have a pre-applied locking compound on them.**

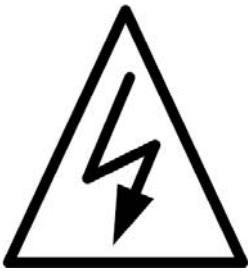
**DO NOT APPLY ANY ADDITIONAL LOCKING COMPOUND TO THE SCREWS. APPLYING ADDITIONAL COMPOUND WILL VOID THE WARRANTY AND MAY CAUSE CRACKING IN THE DOME COVER.**

**When re-installing the dome cover, CAREFULLY lower it onto the base, tilting it side to side as necessary to prevent damaging internal components.**

7. Replace dome cover on base and align holes in dome cover with holes in base. Attach dome cover with dome cover screws saved earlier. Tighten **ALL** screws securely. **DO NOT APPLY ANY LOCKING COMPOUND TO THE SCREWS!**

## ELECTRICAL HAZARD WARNING!

The coax cable that connects the dome unit to the tuner carries a 24 volt electrical current. Exercise extreme caution when handling this cable. Do not cut, break, or splice this line. Do not insert or connect any devices such as splitters or any other device for any reason. This line is not compatible with any other equipment. Damage will occur to any device other than the dome unit if connected to the antenna port on the tuner.



### INTERNAL WIRING

**IMPORTANT! The 50' coax from the "MAIN" port on the dome unit MUST be connected to the Tuner (IDB) in the vessel.**

**Coax connections should be snug. DO NOT OVER TIGHTEN!**

**CONNECT POWER SUPPLY LAST. When connecting the power supply cable to the tuner, push in the power supply cable end until it is flush against the back of the tuner.**

**You must apply a light coating of dielectric grease to the female threads of internal coax connections and to the center stinger of the male coax connections.**

1. Make all connections as shown in the wiring schematic on page 13.

   Apply a light coating of dielectric grease to the female threads of internal coax connections and to the center stinger of the male coax connections.

   **ALWAYS CONNECT THE POWER SUPPLY LAST.**

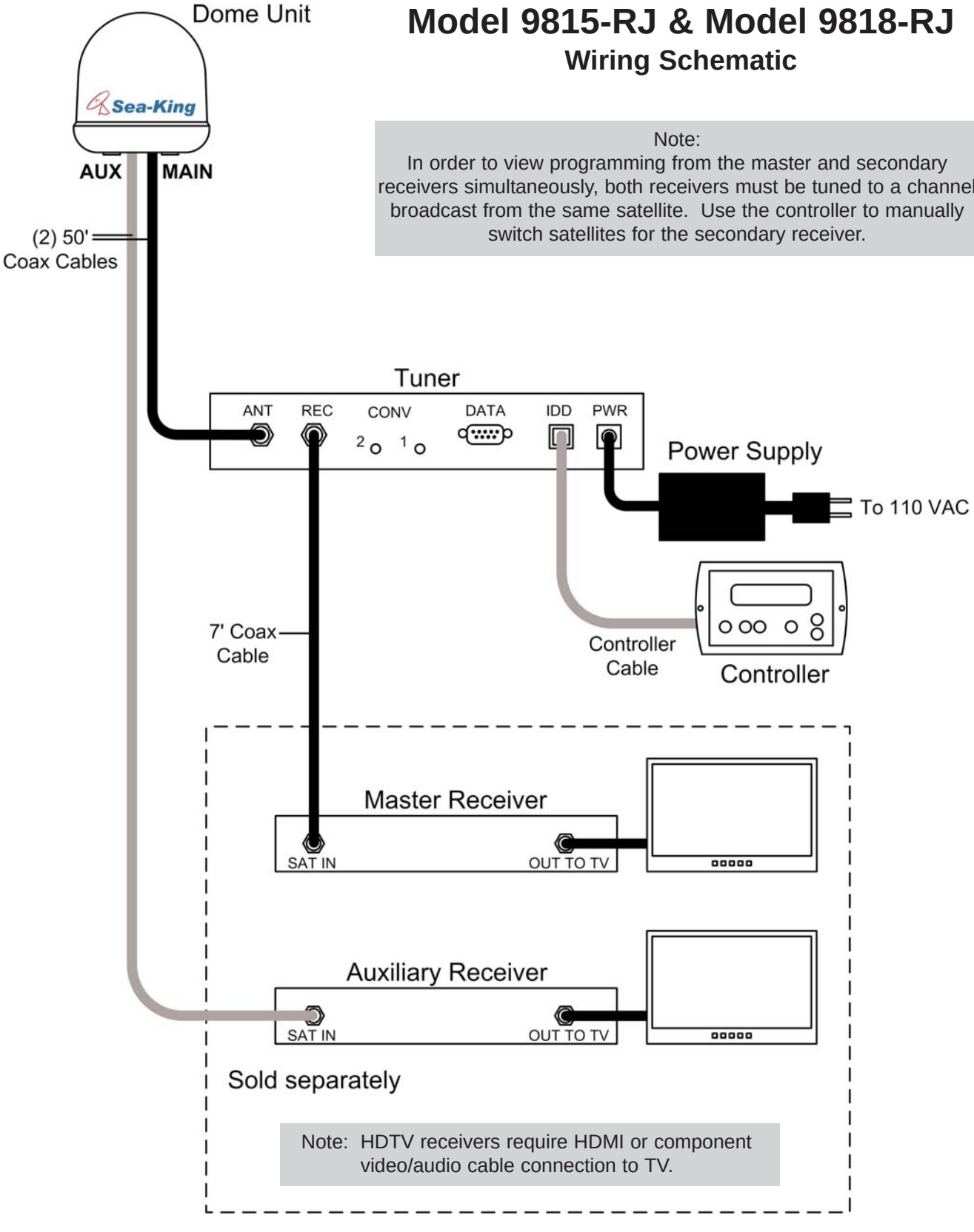
Note: When the power supply is connected, the controller should turn on for 3 seconds and then turn off. If the controller stays on, Press the ENTER and "-" buttons simultaneously to turn unit off.

2. Perform a search to verify all connections are correct (see page 18).

Fig. 10

# Sea-King
# Model 9815-RJ & Model 9818-RJ
## Wiring Schematic

Note:
In order to view programming from the master and secondary receivers simultaneously, both receivers must be tuned to a channel broadcast from the same satellite. Use the controller to manually switch satellites for the secondary receiver.




Note: HDTV receivers require HDMI or component video/audio cable connection to TV.

**IMPORTANT! AVOID SHARP BENDS WHEN ROUTING COAX.**

## MULTIPLE SATELLITE RECEIVER CONFIGURATIONS

With the use of an active multi-switch (sold separately by King Controls), more than two TV's and receivers can be hooked up (see **Fig. 11** for typical 4 receiver hookup).
Diagram shows King Controls Multi-Switch #1810.

Other options:

3-4 satellite receivers: use one 2x4 or 3x4 active multi-switch

8 satellite receivers: use one 2x8 or 3x8 active multi-switch

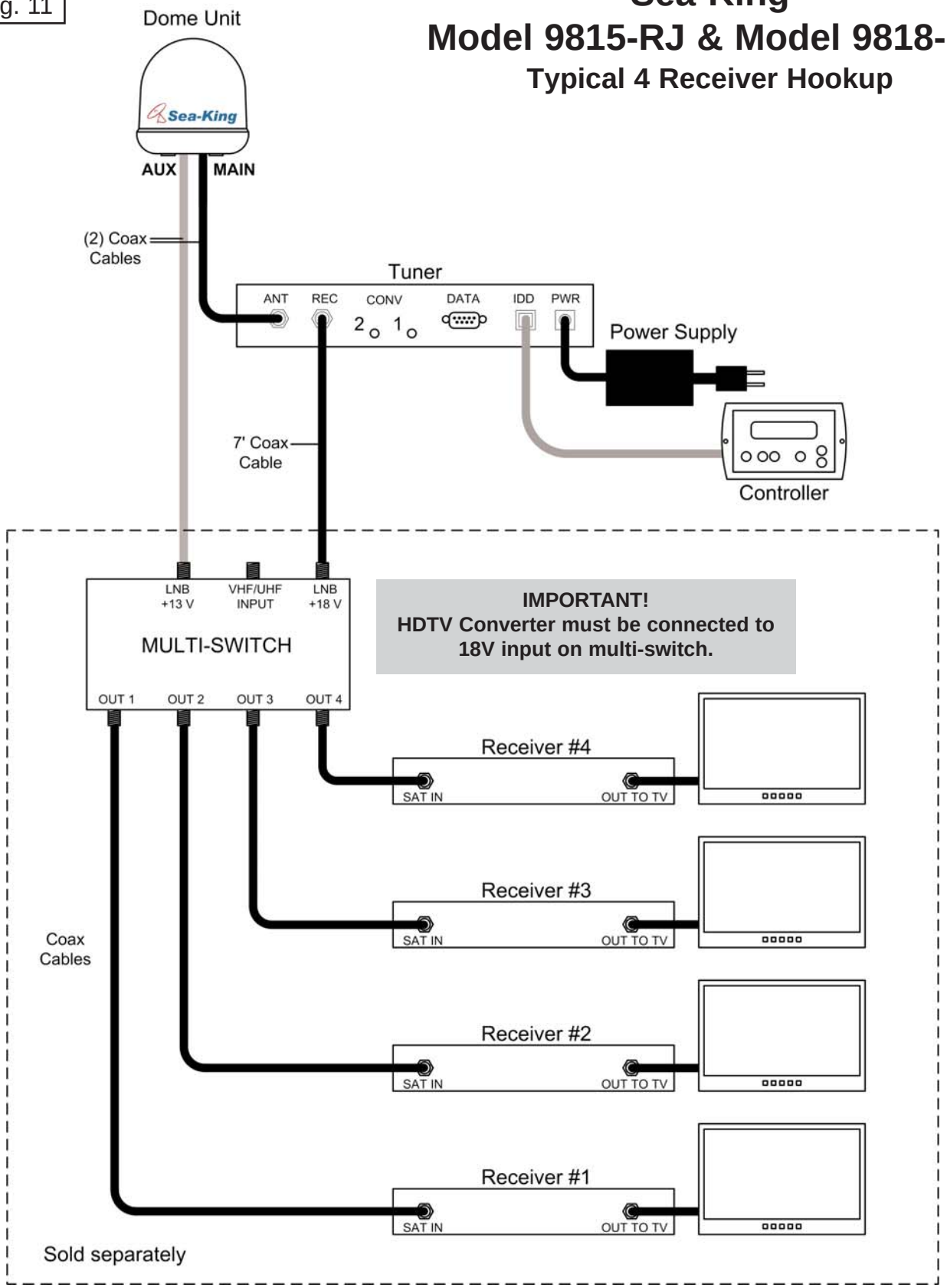
16 satellite receivers: use one 3x16 active multi-switch

King Controls recommends the use of an active multi-switch.
Recommended brands (other brands may work as well):

Channel Master
Eagle Aspen
Perfect Vision
Spaun
Terk

Fig. 11

# Sea-King
# Model 9815-RJ & Model 9818-RJ
## Typical 4 Receiver Hookup




**IMPORTANT! AVOID SHARP BENDS WHEN ROUTING COAX.**

## OPTIONAL WALL MOUNT FACEPLATE (INCLUDED)

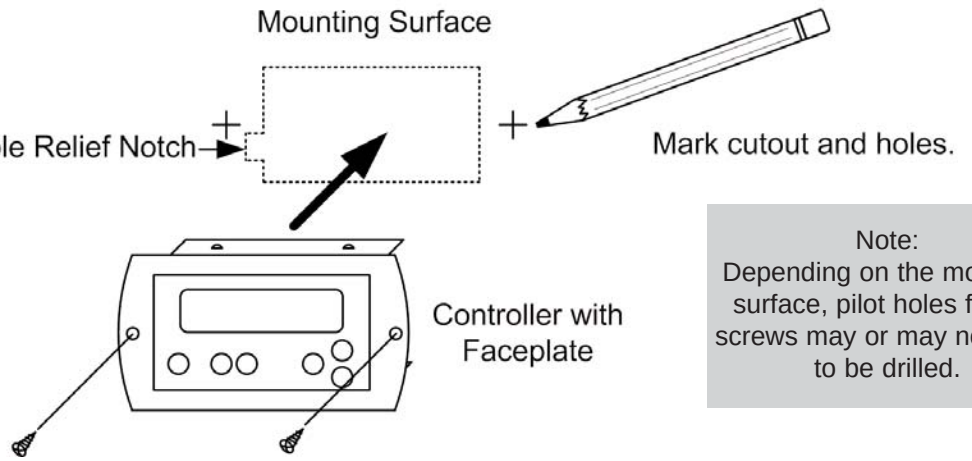
Note: If not using the faceplate, see faceplate removal instructions below.

**IMPORTANT! Depending on the thickness of the vessel wall, a relief notch may need to be cut for the cable. <u>THE CABLE MUST NOT BE PINCHED OR BENT WHEN MOUNTING THE DISPLAY.</u>**

1. Use the Faceplate as a template to mark and cut out the mounting cavity, and if necessary, mark and drill the mounting holes **(Fig. 12)**.

2. Mount Faceplate in wall with supplied screws.

Fig. 12




Note:
Depending on the mounting surface, pilot holes for the screws may or may not need to be drilled.

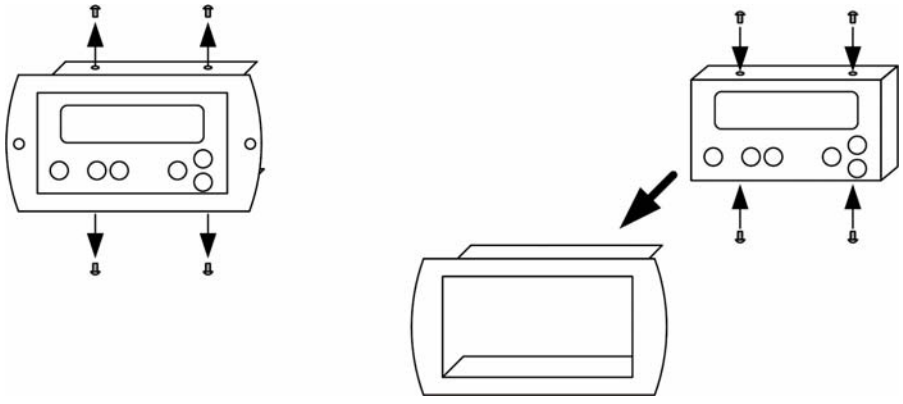
The Faceplate is optional and can be removed as follows **(Fig. 13)**:

1. Remove 4 screws from Controller.

2. Slide Faceplate off of Controller.

3. Replace 4 screws.

Fig. 13



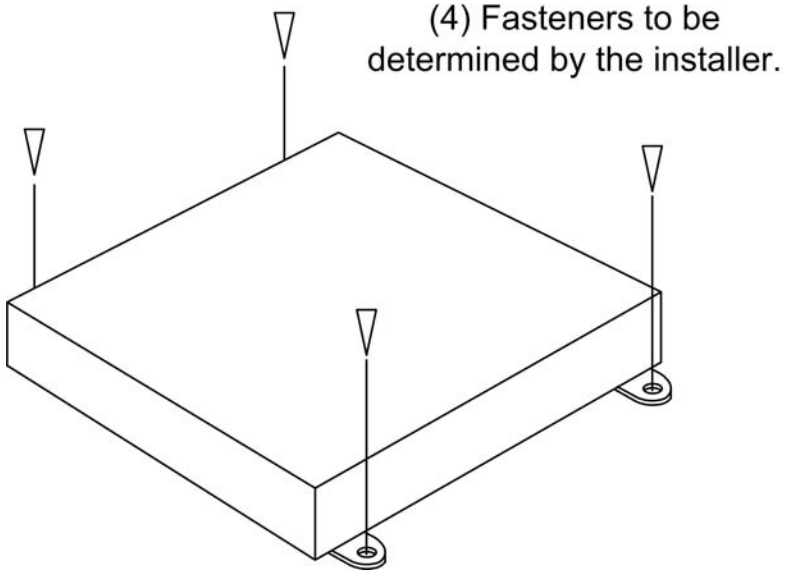
## TUNER MOUNTING OPTIONS

You can mount the tuner or leave it freestanding:

a) You can mount the tuner to an appropriate surface **(Fig. 14)**.

b) You can leave the tuner freestanding. If space requirements dictate, the mounting feet can be snapped off.

Fig. 14




Note: The installer is responsible for determining the most appropriate fasteners to secure the tuner to the chosen surface.

Depending on the mounting surface, pilot holes for the fasteners may or may not need to be drilled.

# SECTION 4 OPERATION

**IMPORTANT! There must be a clear "line of sight" to the satellite (See Fig. 2, Page 3). Terrain, other boats, buildings, trees, masts, telephone poles, etc. can all block the satellite signal from reaching the dish.**

Note: This example is for the DTV 101 satellite in Region 2-North Central. The information on your controller will vary depending on the satellite and region you have chosen (see pages 20-21).

1. Turn on TV and satellite receiver. "Searching for Satellite Signal" or similar should appear on TV.

2. Press **ON**

Unit powers up, performs a self-diagnostic and loads software.

**POWER UP**
**PLEASE WAIT**

**IDBx VER x.x**

Unit begins searching for the selected satellite.

**RUN: SCAN ALIGN**
**NOW on? ⟹**

**RUN: SCAN ALIGN**
**2-NORTH CENTRAL**

**RUN: SCAN ALIGN**
**DTV 101**

Unit has locked onto the selected satellite.

**RUN: LOCKED S XX**
**NOW on 101 ⟹**

**RUN: LOCKED S XX**
**2-NORTH CENTRAL**

**RUN: LOCKED S XX**
**DTV 101**

Note: The Sea-King must remain powered on to maintain a signal. If you are going to be stationary and wish to continue watching TV, **DO NOT TURN THE SYSTEM OFF**.

## AUTOMATIC SATELLITE SWITCHING

**DIRECTV:** Before using the automatic switching feature, you must configure the Sea-king and your receiver for your desired option. For switching options see pages 22.

**Dish Network - ExpressVu:** Before using the automatic switching feature, you must configure the Sea-King and your receiver for your desired option. For switching options see pages 23.

Your receiver may have already been configured for automatic satellite switching by the installer. You can determine this by looking at the Check Switch Installation Summary screen in your receiver, or call the King Controls Service Department at (800) 982-9920.

1. Simply choose your desired channel using the receiver's remote control. The Sea-King will automatically switch to the appropriate satellite.

   **Dish Network HD:** If you are unable to receive all of your HD programming, you will need to switch satellite trios. See page 23 for details on which trio to choose, and follow the instructions on pages 20, and 24-25.

   **SWITCH TRIOS ONLY IF YOU ARE UNABLE TO RECEIVE ALL OF YOUR HD PROGRAMMING.**

Note: For better performance when using the automatic satellite switching feature, change channels by selecting your program from the channel guide rather than channel surfing.

It is common for the picture to pixel or display an error message when the antenna is switching between satellites, or the signal has been temporarily blocked. PLEASE BE PATIENT. THE PICTURE WILL RETURN.

If an error message appears for an extended period, selecting CANCEL may help clear the message more quickly.

The antenna can only receive programming from one satellite at a time. If you change channels on your main receiver, and the antenna has to change satellites, you may lose programming on other receivers.

Manual Switching: To disable automatic switching, manually select your desired satellite using the controller as shown on page 20.

## SET SATELLITE SERVICE

**IMPORTANT!: If you choose any Dish Network or Bell ExpressVu option in steps 1-3 below, you must then run the check switch on pages 24-25.**

**All of the satellite options listed may not be available with your unit. If you cannot lock onto your chosen satellite(s), call the King Controls Service Department.**

### SATELLITE LIBRARY

| | |
|---|---|
| DTV 101 | DIRECTV at 101 |
| DTV 101/ 110 hd | DIRECTV HDTV at 101 and 110* |
| DTV 101/ 119 | DIRECTV HDTV at 101 and 119 |
| Sat 110 | Dish Network at 110 |
| Sat 119 | Dish Network at 119 |
| DISH 61 | Dish Network at 61 |
| DISH 129 | Dish Network at 129 |
| DISH 148 | Dish Network at 148 |
| DISH 110/119 | Dish Network at 110 and 119 |
| DISH 1000 | Dish Network HDTV at 110, 119, and 129 |
| DISH 1000a | Dish Network HDTV at 61, 110, and 119 |
| EXPVU 82 | Bell ExpressVu at 82 |
| EXPVU 91 | Bell ExpressVu at 91 |
| DISH 72.5 | Dish Network at 72.5 |
| DISH 77.0 | Dish Network at 77 |
| BEV 82/91 | Bell ExpressVu at 82 and 91 |

*Note: The King Controls HD TV Converter Box (#9747 or #9747-AM) is required to receive HD programming from the DIRECTV satellite at 110.

1. Press → Unit goes into SET SATELLITE menu.

**SET SATELLITE**
**▮▮▮▮▮▮▮▮**

2. Press + or - Use the plus and minus buttons to display your selected satellite on the controller.

**Display selected satellite on controller.**

3. Press ENTER Sets satellite in memory. Unit moves to new selected satellite.

**RUN: SWITCHING**

**RUN: LOCKED**
**Displays selected satellite**

## SET REGION (OPTIONAL)

Note: To reduce satellite acquisition time, you can set your current region.

1. Press **ON** — Unit goes into IDLE/HOLD mode.

| IDLE/HOLD SXX<br>NOW on 101 ⟹ |
|---|

2. Press **MAIN** — Unit goes into USER SETUP menu.

| USER SETUP ⟹<br>Rev xxxx sn xxxxx |
|---|

3. Press → — Unit goes into SET REGION menu.

| SET REGION<br>▮▮▮▮▮▮▮▮ |
|---|

4. Press **+** or **-** — Find your location on the map below and determine which region you are in. Use the plus and minus buttons to display your region on the controller.

| Display your region on the controller. |
|---|

5. Press **ENTER** — Sets REGION into memory.

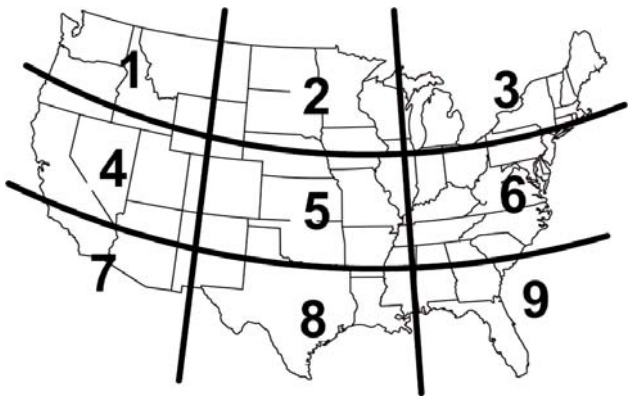
| IDLE/HOLD SXX<br>NOW on 101 ⟹ |
|---|

6. Press **ON** — Unit searches based on new REGION.

| RUN: SCAN ALIGN<br>DTV 101 |
|---|

REGION OPTIONS:

| | |
|---|---|
| 1 | NORTH WEST |
| 2 | NORTH CENTRAL |
| 3 | NORTH EAST |
| 4 | CENTRAL WEST |
| 5 | MIDDLE CENTRAL |
| 6 | CENTRAL EAST |
| 7 | SOUTH WEST |
| 8 | SOUTH CENTRAL |
| 9 | SOUTH EAST |
| | ALL REGIONS |
| 0 | RECALIBRATE |



SECTION 5

# AUTOMATIC SATELLITE SWITCHING
## DIRECTV

### DIRECTV 101 SATELLITE ONLY

To receive programming from the DIRECTV 101 satellite only, choose the DTV 101 option (see page 20), and make sure your receiver is set for round dish-1 satellite (do this through the receiver's satellite set-up menu screens).

### 101/119 AUTOMATIC SATELLITE SWITCHING

To automatically switch between the 101 and 119 satellites for DIRECTV, choose the DTV 101/119 option (see page 20), and make sure your receiver is set for oval dish-2 satellites (do this through the receiver's satellite set-up menu screens).

### HD PROGRAMMING FROM THE 110 SATELLITE

**IMPORTANT! This Sea-King is factory ready to receive available HDTV programming from DIRECTV Ku band satellites at 101° and 119°. This Sea-King will also receive available HDTV programming from the DIRECTV Ku band satellite at 110°, but must include a properly installed HD converter accessory #9747.**
**It will not receive channels broadcast from DIRECTV's Ka band satellites at 99° and 103°.**

With the properly installed HDTV Converter (sold separately by King Controls), this Sea-King will allow you to receive the specially formatted HD signals from DIRECTV's 110° satellite and automatically switch between satellites 101/110 or 101/119 when simply changing channels. When selecting a channel from the program guide results in a "'Searching for Satellite" message or a different channel than selected appearing on the TV screen, pressing the (+) button on the controller will change the switching pair between 101/110 and 101/119 as necessary. Contact the King Controls Sales Department for details.

Note: Any receiver can control the antenna switching if the last channel selected on all other receivers was on an odd transponder on the 101 satellite such as channel 202. (At the time of publication, channel 202 is broadcast on an odd transponder on satellite 101. This is subject to change. If in doubt whether channel 202 is still on an odd transponder, contact DIRECTV or call King Controls.)

You can selectively disable automatic satellite switching on individual receivers with the use of one or more tone block accessories. Please contact King Controls for configuration options.

SECTION 6

# AUTOMATIC SATELLITE SWITCHING

## Dish Network - ExpressVu

### DISH 500 FOR DISH NETWORK

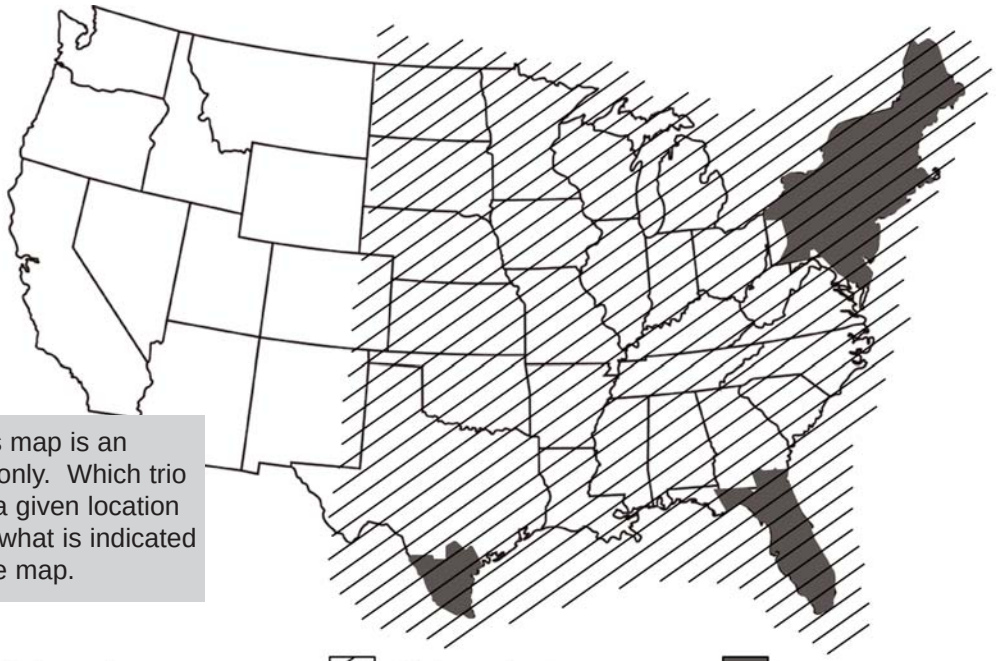
The Sea-King will automatically switch between the 110 and 119 satellites for Dish Network by using the receiver's remote control, after the receiver has been properly configured. Choose the Dish 110/119 option (see page 20) and then follow the instructions on pages 24-25.

### DISH 1000/1000a FOR DISH NETWORK HDTV

Dish Network HD programming is broadcast from 4 satellites (61,110,119,129). The 61 and 129 satellites broadcast identical programming. The 61 is generally stronger in the eastern U.S. and the 129 in the western U.S. The map below shows the approximate coverage for each satellite.

Your Sea-King antenna can be easily configured to work with two different satellite trios (DISH 1000a: 61,110,119 or DISH 1000: 110,119,129). By choosing the appropriate trio that includes either the 61 or the 129 satellite based on where you are, you can receive all of your desired programming. Choose either Dish 1000 or Dish 1000a (see page 20) and then follow the instructions on pages 24-25.

**SATELLITES 61 AND 129 COVERAGE MAP**



Note: This map is an approximation only. Which trio works best in a given location may differ from what is indicated on the map.

129 Approximate coverage | 61 Approximate coverage | 129 Approximate blackout area

**BELL EXPRESSVU HD** (May not be available in all areas due to service provider limitations.)

The Sea-King will automatically switch between the 82 and 91 satellites for Bell ExpressVu by using the receiver's remote control, after the receiver has been properly configured. Choose BEV 82/91 (see page 20) and follow the instructions on pages 24-25.

SECTION 7

# CHECK SWITCH PROCEDURE

## Dish Network - ExpressVu

**IMPORTANT! The antenna must be on the ground, dock or motionless platform with no movement in order to configure the DISH HD receiver.**

**If you are an end user and the Sea-King is already permanently mounted, you can perform the configuration if the vessel is tied up tightly with no movement.**

**For automatic satellite switching, King Controls recommends using a Dish Network model 311 receiver for Dish 500, and a Dish Network model VIP211 or a VIP211k HDTV receiver for Dish 1000/1000a. Do not use dual tuner receivers or recorders.**

**If you do not have a clear view of the satellites, the switch will not load.**

Note: The SW21 and SW64 switches are a receiver software configuration that is loaded into the receiver after running a check switch test with the dish locked on and configured for the appropriate service.

This one time procedure will not need to be repeated after successful installation, unless a) check switch test is run again while connected to a home dish system, b) check switch is run when a receiver is not connected, or c) you travel outside the coverage area of the pre-set satellite trio (Dish 1000/1000a only).

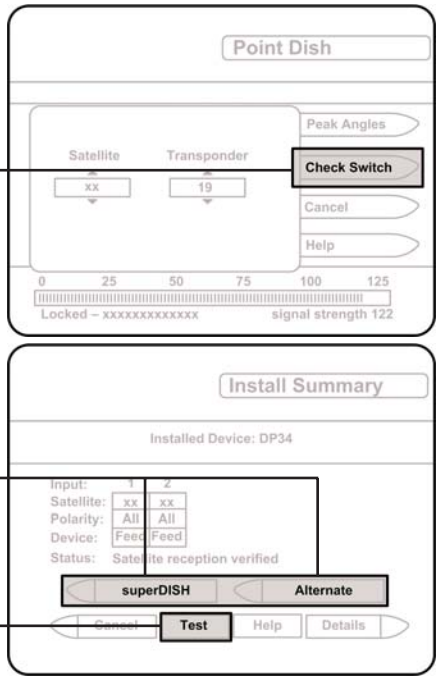
1. Make sure the Sea-King has locked onto the satellite(s) from the selection you made on page 20 by verifying the satellite option in the controller's display window.

2. On the receiver remote, press menu, 6, 1, 1.

3. Highlight **Check Switch** and press **Select**.

4. Make sure Superdish and Alternate boxes are **NOT** selected.

5. Highlight Test and press Select.

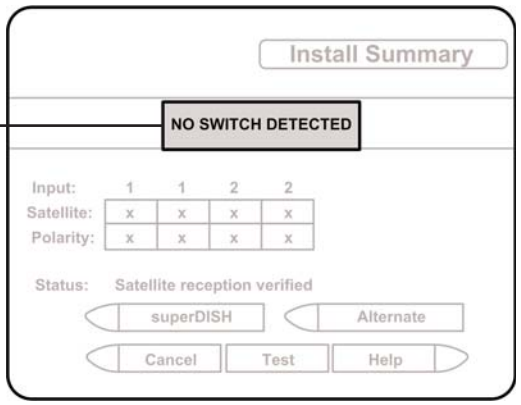



Screen graphics may vary.

The unit will perform a check switch test, and the dish will periodically move back and forth. (This process will take several minutes.)

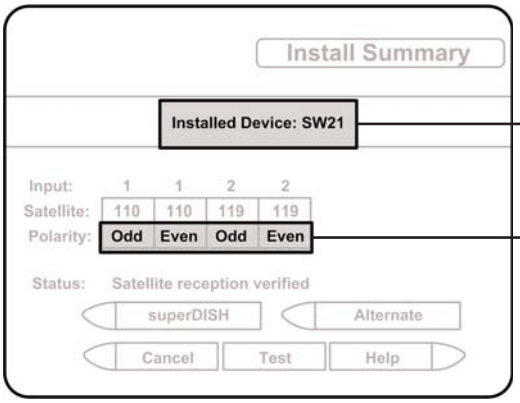
6. When test is complete, a screen similar to one of the following should appear: (Screen graphics may vary.)

**ALL SINGLE SATELLITES**




**NO SWITCH DETECTED**
**or**
**INSTALLED DEVICE UNKNOWN**

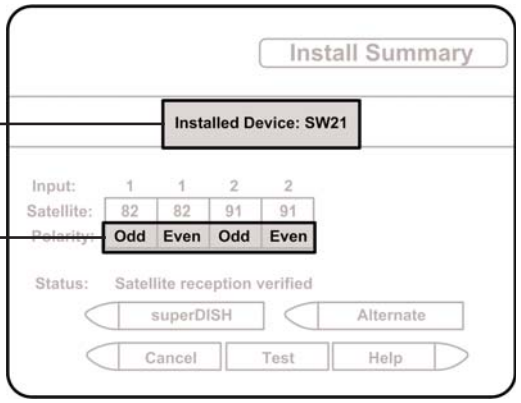
**DISH 500**



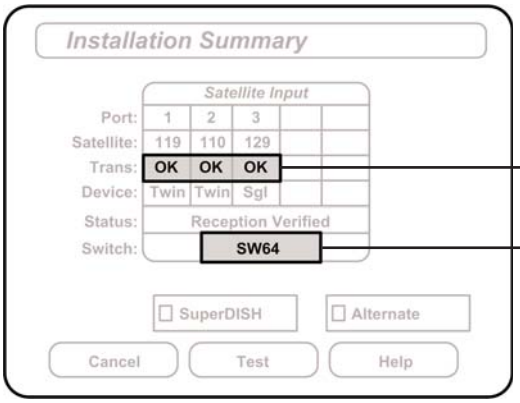

**MUST SHOW "SW21"**

**NO "X"s**

**EXPRESSVU HDTV 82/91**



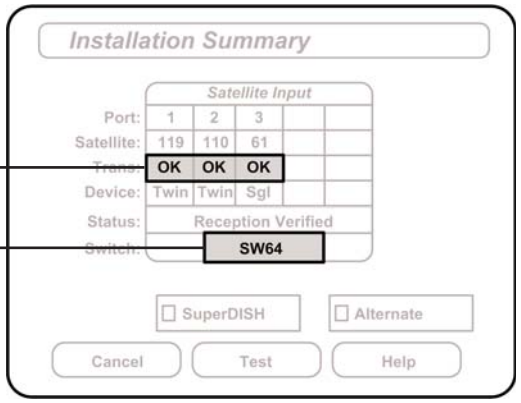

**DISH 1000**




**NO "X"s**

**MUST SHOW "SW64"**

**DISH 1000a**




If indicated results are not obtained, go back to Step 1 and run test again. Contact King Controls if the check switch fails to load after 4 attempts.

7. Save the settings, exit to the main menu screen and wait for your programming to download.

8. **DISH 1000/1000a ONLY:** Verify your saved settings show your desired satellite trio (110, 119, 129 or 110, 119, 61).

Check switch is complete.

# SECTION 8 TROUBLESHOOTING

| SYMPTOM | POSSIBLE SOLUTION |
|---|---|
| Controller does not power up. | Check: tuner is connected to power supply.<br>controller is connected to tuner.<br>power supply is plugged into 110 VAC outlet. |
| Controller remains in one of the following conditions:<br>POWER TRIP<br>ANT COM ERROR?<br>TUNER COM ERROR? | Unplug tuner for 10 seconds, then plug back in.<br>Check coax cables and connections between tuner and dome unit.<br>Verify voltage on coax at dome unit is 24 volts. |
| Controller displays AZ FAULT. Dish cannot rotate | Make sure shipping bolt is removed.<br>Disconnect power supply for 15 seconds, then reconnect.<br>Perform **OPTION 21 RE-INITIALIZE and 0-RECALIBRATE** (Pages 28-29).<br>Reseat ribbon cables (inside dome unit). |
| Display reads EL FAULT. | Disconnect power supply for 15 seconds, then reconnect.<br>Restart system. If problem persists, perform **OPTION 21 RE-INITIALIZE and 0-RECALIBRATE** (Pages 28-29).<br>Reseat ribbon cables (inside dome unit). |

| SYMPTOM | POSSIBLE SOLUTION |
|---|---|
| Only getting signal on 1/2 of transponders. | Kinked or sharply bent coax cable.<br><br>Verify coax cables are properly terminated with SNAP-N-SEAL® connectors only.<br><br>Verify receiver is operating properly.<br><br>Verify LNB type is set correctly. |
| Unit never locks on or locks on and drifts off of satellite. | Atmospheric moisture. Unit will lock on as weather improves.<br><br>Check for obstruction in sky in direction of satellite. Select another satellite and verify unit locks on.<br><br>Verify coax cables are properly terminated with SNAP-N-SEAL® connectors only.<br><br>Perform **OPTION 21 RE-INITIALIZE and 0-RECALIBRATE** (Pages 28-29).<br><br>Inspect all coax cables and verify connections are snug but not overly tight (inside and outside dome unit). |

# OPTION 21 RE-INITIALIZE and 0-RECALIBRATE

1. Press (MAIN) as needed to enter DEALER SETUP menu.

DEALER SETUP ==>
CODE 0

2. Press (+) as needed to scroll up to CODE 13.

DEALER SETUP ==>
CODE 13

Press (ENTER)

3. Press (→) as needed to enter SET OPTION menu.

SET OPTION
OPTION 0

4. Press (-) as needed to scroll down to OPTION 21.

SET OPTION
OPTION 21

Press (ENTER) to re-initialize software.

LOADING
PLEASE WAIT

5. Wait until display shows OPTION 0.
(May take up to 30 seconds.)

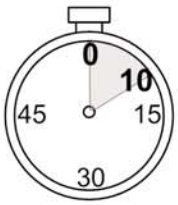
SET OPTION
OPTION 0

Press (ENTER) and (-) simultaneously to shut system off.

off

6. Disconnect power (110 volt power supply) from tuner for 10 seconds, then reconnect.

**WAIT 10 SECONDS!**




7. Wait until controller shows “off” then press (ON) to start system.

off

8. Wait for system to load.

| POWER UP<br>PLEASE WAIT |
|---|

| LOADING<br>PLEASE WAIT |
|---|

When display shows RUN: SCAN ALIGN,

press (ON) to enter IDLE/HOLD mode.

| IDLE/HOLD SXX<br>NOW on ? ==> |
|---|

9. Press (MAIN) to enter USER SETUP menu.

| USER SETUP ==><br>Rev xxxx sn xxxxx |
|---|

10. Press (→) to enter SET REGION menu.

| SET REGION<br>▮▮▮▮▮▮▮▮ |
|---|

11. Press (+) or (-) as needed to display 0-RECALIBRATE.

| SET REGION<br>0-RECALIBRATE |
|---|

12. Press (ENTER) System recalibrates gyros.

| RUN: SCAN ALIGN<br>0-RECALIBRATE |
|---|

13. Press (ON) to exit IDLE/HOLD mode.

| RUN: SCAN ALIGN |
|---|

System will continue to run during recalibration process. Recalibration is complete when 0-RECALIBRATE no longer scrolls across bottom of display with search information. May take up to 10 minutes.

14. System continues to run after recalibration is complete.

| RUN: SCAN ALIGN<br>DTV 101 |
|---|

# SECTION 9 MAINTENANCE

The Sea-King Satellite System has been designed to be maintenance and trouble free.

For optimum signal strength, keep the dome clean from dirt, bugs, and other debris. Periodic washing of the dome with mild soap and water is recommended.

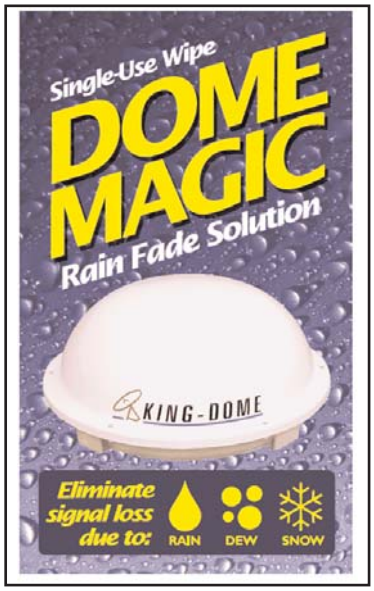
If you plan on storing your vessel for long periods of time, it is recommended that the system be put through a search procedure on a quarterly basis to keep all moving parts in good working order.

If you have any comments or questions, please contact the King Controls Service Department at (800) 982-9920, or email King Controls at info@kingcontrols.com

**Rain Fade**

Rain or dew on the dome can cause signal interference and make the digital picture freeze, pixel or go out altogether. This loss of signal is commonly referred to as “rain fade” and is caused by the combination of water in the atmosphere and water on the dome surface.

To minimize this issue and eliminate the effects of water on the dome, apply King Controls ***Dome Magic***® rain fade solution to the dome. This will prevent water from sticking to the dome surface and blocking the signal. For additional details on ***Dome Magic***® rain fade solution please contact your authorized Sea-King dealer or call King Controls at (800) 982-9920.




**Single Application Packet #1830-SP**

**Spray Can #1830**

# SECTION 10 LIMITED WARRANTY

Every King Controls Satellite System is thoroughly inspected and tested before leaving the factory. It is covered by a two year parts and one year labor limited warranty from the date of original purchase. This warranty does not cover installation and external wiring or refurbished units.

Should any trouble develop during the warranty period, contact King Controls. Only King Controls and certified dealers are authorized to perform warranty evaluations and repairs.

If it is determined that the unit needs to be returned, return COMPLETE product, freight prepaid, to : **King Controls, 11200 Hampshire Ave. S, Bloomington, MN 55438-2453**.

If inspection shows the trouble is caused by defective workmanship or material, King Controls will repair (or at its option, replace) without charge.

This warranty does not apply where:

- The product has been abused, misused, improperly installed or improperly maintained.
- Repairs have been made or attempted by others that are not certified by King Controls to do such repairs.
- Repairs are required because of normal wear and tear.
- Alterations have been made to the product

**In no event shall King Controls be liable for any indirect, incidental, or consequential damages from the sale or use of the product. This disclaimer applies both during and after the term of the warranty.**

**King Controls disclaims liability for any implied warranties, including implied warranties of “merchantability” and “fitness for a specific purpose,” after the one year term of this warranty.**

This warranty gives you specific legal rights, and you may also have other rights, which vary from state to state. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.

# Notes:

11200 Hampshire Avenue South, Bloomington, MN 55438-2453
Phone: (800) 982-9920 Fax: (952) 922-8424

www.kingcontrols.com

KING CONTROLS®